PATENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

| To:

Commissioner
US Department of Commerce
United States Patent and Trademark
Office, PCT
2011 South Clark Place Room
CP2/5C24
Arlington, VA 22202

in its capacity as elected Office

Date of mailing (day/month/year) 08 May 2001 (08.05.01)

International application No. PCT/NO00/00228

International filing date (day/month/year) 30 June 2000 (30.06.00)

International filing date (day/month/yea

30 June 2000 (30.06.00)

Applicant's or agent's file reference
Opti47PCT

ETATS-UNIS D'AMERIQUE

Priority date (day/month/year) 30 June 1999 (30.06.99)

Applicant

JACKSON, Thomas

1.	The designated Office is hereby notified of its election made:
	X in the demand filed with the International Preliminary Examining Authority on:
	24 January 2001 (24.01.01)
	in a notice effecting later election filed with the International Bureau on:
2.	The election X was
2.	was not
	made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland

Authorized officer

Charlotte ENGER

Telephone No.: (41-22) 338.83.38

Facsimile No.: (41-22) 740.14.35

PATENT COOPERATION TREAT /

From the INTERNATIONAL BUREAU						
PCT	То:					
NOTIFICATION OF THE RECORDING OF A CHANGE (PCT Rule 92bis.1 and Administrative Instructions, Section 422) Date of mailing (day/month/year) 12 April 2001 (12.04.01)	LEISTAD, Geirr, I. Thin Film Electronics ASA P.O. Box 1872 Vika N-0124 Oslo NORVÈGE					
Applicant's or agent's file reference Opti47PCT	IMPORTANT NOTIFICATION					
International application No. PCT/NO00/00228	International filing date (day/month/year) 30 June 2000 (30.06.00)					
The following indications appeared on record concerning: the applicant	the agent the common representative					
Name and Address LEISTAD, Geirr, I. Thin Film Electronics ASA P.O. Box 1872 Vika N-0124 Oslo Norway	State of Nationality Telephone No. +47 23 23 84 40 Facsimile No. +47 23 23 84 41 Teleprinter No.					
2. The International Bureau hereby notifies the applicant that the the person the name the add Name and Address LEISTAD, Geirr, I. Thin Film Electronics ASA P.O. Box 1872 Vika N-0124 Oslo Norway						
3. Further observations, if necessary: Please note the change of telephone and facsimile number.						
4. A copy of this notification has been sent to: X the receiving Office the International Searching Authority the International Preliminary Examining Authority	X the designated Offices concerned the elected Offices concerned other:					
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer C. Cupello Telephone No.: (41-22) 338 83 38					

PATENT COOPERATION TREATY

PCT



INTERNATIONAL PRELIMINARY EXAMINATION REPORT 50

(PCT Article 36 and Rule 70)

		(FOT Afficie 30 and	Thule 70)
Applicant's	or agent's file reference		See Notification of Transmittal of International
Opti47P	СТ	FOR FURTHER ACTION	Preliminary Examination Report (Form PCT/IPEA/416)
Internation	al application No.	International filing date (day/month	n/year) Priority date (day/month/year)
PCT/NO	00/00228	30/06/2000	30/06/1999
Applicant THIN FIL 1. This i and is	M ELECTRONICS ASA et international preliminary exams transmitted to the applicant a	al. Jination report has been prepared according to Article 36. 5 sheets, including this cover sl	
b (:	een amended and are the bas	sis for this report and/or sheets c 07 of the Administrative Instruction	e description, claims and/or drawings which have containing rectifications made before this Authority ons under the PCT).
3. This r	report contains indications rela	ating to the following items:	
1	Basis of the report		
	☐ Priority		
III IV	☐ Non-establishment of o☐ Lack of unity of invention		entive step and industrial applicability
V	☐ Reasoned statement ur		novelty, inventive step or industrial applicability;
VI	☐ Certain documents cite	•	
VII	Certain defects in the ir	nternational application	
VIII	☑ Certain observations or	n the international application	
Date of sub	mission of the demand	Date of c	completion of this report
24/01/20	01	30.10.20	001
	mailing address of the internationa examining authority:	l Authorize	ed officer
<u>@</u>)	European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656	Agne, N	V (Signal of the Control of the Cont
	Fax: +49 89 2399 - 4465	,	ne No. ±49.89.2399.2631

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/NO00/00228

	I. B	asis	f th	ıe r	por
--	------	------	------	------	-----

1.	the and	receiving Office in	nents of the international application (Heplacement sheets which have been furnished to response to an invitation under Article 14 are referred to in this report as "originally filed" this report since they do not contain amendments (Rules 70.16 and 70.17)):				
	1-1	3	as originally filed				
	Cla	ims, No.:					
	1-2	4	as originally filed				
	Dra	awings, sheets:					
	1-4		as originally filed				
2.	Wit lan	h regard to the lang guage in which the i	uage, all the elements marked above were available or furnished to this Authority in the nternational application was filed, unless otherwise indicated under this item.				
	The	ese elements were a	evailable or furnished to this Authority in the following language: , which is:				
		the language of a t	ranslation furnished for the purposes of the international search (under Rule 23.1(b)).				
		the language of pu	blication of the international application (under Rule 48.3(b)).				
		the language of a t 55.2 and/or 55.3).	ranslation furnished for the purposes of international preliminary examination (under Rule				
3.			leotide and/or amino acid sequence disclosed in the international application, the y examination was carried out on the basis of the sequence listing:				
		contained in the inf	ternational application in written form.				
	☐ filed together with the international application in computer readable form.						
	☐ furnished subsequently to this Authority in written form.						
	furnished subsequently to this Authority in computer readable form.						
		The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.					
	☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.						
4.	The	amendments have	resulted in the cancellation of:				
		the description,	pages:				
		the claims,	Nos.:				

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/NO00/00228

	the drawings,	sheets:
5.		established as if (some of) the amendments had not been made, since they have been rond the disclosure as filed (Rule 70.2(c)):
	(Any replacement she report.)	eet containing such amendments must be referred to under item 1 and annexed to this

- 6. Additional observations, if necessary: see separate sheet
- V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- 1. Statement

Novelty (N) Yes: Claims

No: Claims 1-24 (no)

Inventive step (IS) Yes: Claims

No: Claims 1-24 (no)

Industrial applicability (IA) Yes: Claims

No: Claims 1-24 (yes)

2. Citations and explanations see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made: see separate sheet

R It m I

Basis of the opinion

1. Claims 1-24 relate to a very large number of possible means and methods. In fact, the claims contain so many "or" and "and/or" options that a lack of clarity and conciseness within the meaning of Article 6 PCT arises to such an extent, that the international search authority found it impossible to perform a search for the while scope of the claims. Consequently, only a search for the means and methods mentioned in the description at page 8, ie. the embodiments according to figures 3 and 4, has been performed.

In accordance with Rule 66.1(e) PCT, the examination will be limited to the searched subject-matter. Unsearched subject-matter will not be examined within this procedure.

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Reference is made to the following documents:

D1: EP-A-0 450 862 D2: WO-A-98/28320

- 2. Since the meaning of the present set of claims is unclear (cf. point VIII), a detailed reasoning concerning the novelty and inventive merit of the claimed subjectmatter is currently not possible. However, interpreting the claims in the light of the description, the following remarks are made:
- 2.1 Document D1 discloses an organic thin film element (eg. a TFT transistor, cf. column 10) comprising a substrate (11), a charge transfer layer (5) formed thereon, and an organic semiconductor thin film layer (12) deposited thereon.

This device appears to comprise all the technical features of claims 1-8.

EXAMINATION REPORT - SEPARATE SHEET

Furthermore, D1 also discloses the use of a carbon layer having a graphite structure as the charge transfer layer (cf. column 10, line 36), thereby anticipating the subject-matter of claim 10.

Finally, the method of forming the device (cf. column 10, line 33-38) appears to comprise all the technical features of claims 13-20 and 22.

- 2.2 Although the search report does not cite any document showing such a device, it is well known in the field to provide standard MOS transistors with silicided source and/or drain contacts by depositing a metal on the source/drain regions and subsequent heating, thereby forming a silicide layer as a reaction product between the source/drain material (silicon). The applicant's attention is drawn to the fact that this well-known process and the silicided MOSFET produced thereby falls within the subject-matter of claims 1, 10, 11, 12, 13, 22, 23, and 24.
- 2.3 Document D2 (cf. page 21, line 2-18) describes a process of assembling photonic components on a host substrate via an interlayer of complementary DNA molecules.

This process and the resulting device appear to comprise all the technical features of claims 21 and 9, respectively.

Re Item VIII

Certain observations on the international application

- 1. Claims 1-24 relate to a very large number of possible means and methods. The claims contain so many options that a lack of clarity and conciseness within the meaning of Article 6 PCT arises.
 - In particular, the claims contain many options of the type "Feature A or not A" (eg. "contacting or isolating", "organic or inorganic", "contact material or isolating material", "direct or indirect bond", "donor or acceptor"). The technical limitations implied by the combination of options remain unclear; the expressions could even be interpreted as imposing no technical limitations at all.



For receiving Office use only	 -
International Application No.	
International Filing Date	
_	
Name of receiving Office and "PCT International Application	on"

REQUEST	·						
•	International Filing Date						
The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.	Name of receiving Office	and "PCT International Application"					
	Applicant's or agent's file (if desired) (12 characters mo	001147101					
Box No. I TITLE OF INVENTION A means for electrical contacting or isolation of organic or inorganic semiconductors and a method for its fabrication							
Box No. II APPLICANT							
Name and address: (Family name followed by given name: for a designation. The address must include postal code and name of con address indicated in this Box is the applicant's State (that is, country of residence is indicated below.)	intry The country of the	This person is also inventor.					
THIN FILM ELECTRONICS ASA	•	Telephone No. +47 23 23 84 40					
P.O.Box 1872 Vika N-0124 Oslo		Facsimile No. +47 23 23 84 41					
Norway		Teleprinter No.					
State (that is, country) of nationality:	State (that is, country) of	residence: NO					
NO This person is applicant all designated all des	ed States except the	United States The States indicated in					
for the purposes of: States X the United S	States of America of	America only the Supplemental Box					
Box No. III FURTHER APPLICANT(S) AND/OR (FURT	HER) INVENTOR(S)						
Name and address: (Family name followed by given name: for a designation. The address must include postal code and name of con address indicated in this Box is the applicant's State (that is, country of residence is indicated below.) JACKSON, Thomas 1348 Deerfield Drive State College PA16801 U.S.A.	intry. The country of the	This person is: applicant only applicant and inventor inventor only (If this check-box is marked, do not fill in below.)					
State (that is, country) of nationality:	State (that is, country) of	residence:					
US	·	US					
		United States the States indicated in America only the Supplemental Box					
Further applicants and/or (further) inventors are indicated	on a continuation sheet.						
Box No. IV AGENT OR COMMON REPRESENTATIVE	OR ADDRESS FOR C	ORRESPONDENCE					
The person identified below is hereby/has been appointed to act of the applicant(s) before the competent International Authorities	on behalf ag	gent X common representative					
Name and address: (Family name followed by given name: for a designation. The address must include postal c	a legal entity, full official ode and name of country.)	Telephone No. +47 23 23 84 40					
LEISTAD, Geirr I. of		Facsimile No.					
THIN FILM ELECTRONICS ASA		+47 23 23 84 41					
P.O.Box 1872 Vika N-0124 Oslo							
Norway		Teleprinter No.					
Address for correspondence: Mark this check-box where	no agent or common repres	lentative is/has been appointed and the ld be sent.					

Continuation of Box No. III FURTHER APPLICANT(S) A	ND/OR (FURTHER)	VENTOR(S)
If none of le lowing sub-boxes is used, the	is sheet should no lin	ncluded in the request.
Name and address: (Family name followed by given name: for a l designation. The address must include postal code and name of cour address indicated in this Box is the applicant's State (that is, country) of residence is indicated below.)	egal entity, full official ntry. The country of the of residence if no State	This person is:
WANG, Jianna		applicant only
5 Dolores Ave. #		X applicant and inventor
Waltham MA 02452 USA		inventor only (If this check-box is marked, do not fill in below.)
State (that is, country) of nationality: CN	State (that is, country) of	residence: US
This person is applicant all designated all designated for the purposes of:		United States the States indicated in the Supplemental Box
Name and address: (Family name followed by given name; for a le designation. The address must include postal code and name of coun address indicated in this Box is the applicant's State (that is, country) of residence is indicated below.)	egal entity, full official try. The country of the of residence if no State	This person is: applicant only applicant and inventor inventor only (If this check-box is marked, do not fill in below.)
State (that is, country) of nationality:	State (that is, country) of	residence:
This person is applicant all designated all designated for the purposes of:		United States America only the States indicated in the Supplemental Box
Name and address: (Family name followed by given name: for a legal designation. The address must include postal code and name of count address indicated in this Box is the applicant's State (that is, country) of residence is indicated below.)	gal entity, full official ry, The country of the of residence if no State	This person is: applicant only applicant and inventor inventor only (If this check-box is marked, do not fill in below.)
State (that is, country) of nationality:	State (that is, country) of i	residence:
This person is applicant all designated all designated for the purposes of:	es of America of A	United States the States indicated in the Supplemental Box
Name and address: (Family name followed by given name; for a leg designation. The address must include postal code and name of count address indicated in this Box is the applicant's State (that is, country) of of residence is indicated below.)	ry Inecountry of the	This person is: applicant only applicant and inventor inventor only (If this check-box is marked, do not fill in below.)
State (that is, country) of nationality:	State (that is, country) of re	esidence:
This person is applicant all designated all designated for the purposes of:		United States the States indicated in the Supplemental Box
Further applicants and/or (further) inventors are indicated on	another continuation she	et.

	: No.								
		owing designations are here ade under Rule 4.9(a) (m	ark.	he app	licable check at least one must be marked):				
		l Patent							
		ARIPO Parent: GH Ghana, GM Gambia, KE Kenva, L	S L	zotho.	MW Malawi, SD Sudan, SL Sierra Leone, SZ Swaziland				
	AP ARIPO Patent: GH Ghana, GM Gambia, KE Kenya, LS Lesotho, MW Malawi, SD Sudan, SL Sierra Leone, SZ Swaziland, TZ United Republic of Tanzania, UG Uganda, ZW Zimbabwe, and any other State which is a Contracting State of the Harare Protocol and of the PCT								
		Eurasian Patent: AM Armenia, AZ Azerbaijan, BY Belarus, KG Kyrgyzstan, KZ Kazakhstan, MD Republic of Moldova, RU Russian Federation, TJ Tajikistan, TM Turkmenistan, and any other State which is a Contracting State of the Eurasian Patent Convention and of the PCT							
-	EP	European Patent: AT Austria, BE Belgium, CH a. DK Denmark, ES Spain, FI Finland, FR France, GB U MC Monaco, NL Netherlands, PT Portugal, SE Sweden, Convention and of the PCT	nite	any oti	ritzerland and Liechtenstein, CY Cyprus, DE Germany, gdom, GR Greece, IE Ireland, IT Italy, LU Luxembourg, her State which is a Contracting State of the European Patent				
X	OΑ	OAPI Patent: BF Burkina Faso, BJ Benin, CF Centr	MК	Mauri	Republic, CG Congo, CI Côte d'Ivoire, CM Cameroon, tania, NE Niger, SN Senegal, TD Chad, TG Togo, and any of the PCT (if other kind of protection or treatment desired.				
 M -		specify on ability line; 1 Patent (if other kind of protection or treatment desired, spec	י אי	n dotte	rd line)				
		United Arab Emirates	M	LR	Liberia				
		Albania	X	LS	Lesotho				
		Armenia	X	LT	Lithuania				
		Austria	X	LU	Luxembourg				
X	ΑU	Australia	X	LV	Larvia				
図	ΑZ	Azerbaijan	স	MA	Morocco				
X	BA	Bosnia and Herzegovina			Republic of Moldova				
					Madagascar				
区区	BC.	Barbados Buigaria			The former Yugoslav Republic of Macedonia				
	20	Brazil	ш	IVIIC	the former ragional response of maccoma				
X		Beiarus	(C)	3.131					
_					Mongolia				
		Canada			Malawi				
		and LI Switzerland and Liechtenstein	=		Mexico				
X		China	_		Norway				
X		Costa Rica	X	NZ	New Zeniand				
X	-	Cuoa	X	PL	Poland				
\triangle		Czech Republic	X	PT	Portugal				
Z		Germany	X	RO	Romania				
X	DK	Denmark	\mathbf{X}	RU	Russian Federation				
X	DM	Dominica	\boxtimes	SD	Sudan				
Ø	EE	Estonia	\boxtimes	SE	Sweden				
		Soain		SG	Singapore				
X	FT	Finiand	X	SI	5 .				
X		United Kingdom		SK	Slovakia				
=	•	Grenada		SL	Sierra Leone				
N N		Georgia	_	TJ	Tajikistan				
X		Ghana	_	TM	Turkmenistan				
					Turkey				
		Gambia	X		Trinidad and Tobago				
X		Croatia		ITT					
	HU	Hungary		TZ	United Republic of Tanzania				
X	D	Indonesia		i UA	Ukraine				
X	IL	Israel		UG	Uganda				
X	IN	India	Z	us	United States of America				
X	Is	Iceiand							
I X		Jaran	Z	UZ	Uzbekistan				
	KE		X	NV E	Viet Nam				
		Kyrgyzstan		IJΥŪ	Yugoslavia				
1				ZA	South Africa				
کا ا	KP	Democratic People's Republic of Roles	ī	.zw	Zimbabwe				
_			_	baais	hower reserved for designating States which have				
X] KR	Republic of Korea	0	ecome	batty to the LC Latter 122 marce of min vices				
		Kazakhstan			Algeria				
1 -	_	Saint Lucia	Ē	7					
] LK	Sri Lanka	_						
P	recau	tionary Designation Statement: In addition to the design	natio	ons ma	de above, the applicant also makes under Rule 4.9(b) all other tion(s) indicated in the Supplemental Box as being excluded				

No. VI PRIORITY C.		I			prior	ity claims are indicated in t				
Filing date Number ier application national application: re- application: International application										
(day/month/year)	Ì.			national application	n:		ernational application:			
County regional Office Tectiving Office										
30 June 1999	1,000	2266		NO			•			
(30.06.1999) 19993266 NO										
item (2)										
-										
item (3)				·		·				
	}									
The receiving Office is recoff of the earlier application(s purposes of the present into the Where the earlier application is	s) (only if t ernational an ARIPO d	he earlier o application application i	ipplic i is the it is me	ation was filed with e receiving Office) ide andatory to indicate in t	the (entifi the Si	Office which for the ed above as item(s):	(1)			
Convention for the Protection of In					as fil	ed (Rule 4.10(b)(ii)). See Supp	plemental Box.			
Box No. VII INTERNATIO			AUT	HORITY						
Choice of International Search	hing Autho	rity (ISA)				lier search; reference to the requested from the International				
competent to carry out the interna	ational sear	ch, indicate	_	•	J J J		, , ,			
the Authority chosen; the two-letter	r coae may o	e usea).	Date	(day/month/year)		Number Co	untry (or regional Office)			
ISA/ se										
Box No. VIII CHECK LIST	; LANGI	JAGE OF I	FILI	NG						
This international application c	5 :			• •	прап	ied by the item(s) marked b	elow:			
request :	4 1	l. ☑ fee c								
description (excluding	13			igned power of attorn			•			
sequence listing part) : 3. copy of general power of attorney; reference number, if any:										
claims : 4 4. statement explaining lack of signature										
abstract : 1 5. priority document(s) identified in Box No. VI as item(s):										
drawings : 3 6. translation of international application into (language):										
sequence listing part 7. separate indications concerning deposited microorganism or other biological material										
of description 8. nucleotide and/or amino acid sequence listing in computer readable form										
Total number of sheets: 25 9. other (specify):										
Figure of the drawings which should accompany the abstract:	3,4			nguage of filing of the		English	······································			
Box No. IX SIGNATURE OF APPLICANT OR AGENT										
Next to each signature, indicate the na					son sig	gns (if such capacity is not obviou	s from reading the request).			
				TRONICS ASA			•			
	1111	THE	7.50	TROWIED ADA						
		1			1					
	1/200	·~~	<u> </u>	- 72	<u> </u>	V 13				
,		Geirr	I.	Leistad	,	•				
			E 0 = ==	eceiving Office use or	niv					
1. Date of actual receipt of the	nimored		r or re	scerving Office are of	my -		2. Drawings:			
international application:	, parportid									
3. Corrected date of actual rec	sipt due to	later but				······································	received:			
timely received papers or dr the purported international :	rawings co	mpleting								
Date of timely receipt of the corrections under PCT Article	cie 11(2):						not received:			
5. International Searching Auti (if two or more are compete	hority nt): ISA	λ/				al of search copy delayed ch fee is paid.				
		E		mational Bureau use o	onler		······································			
Date of receipt of the record co by the International Bureau:	ppy		, me	national Dureau use (only					